List of Claims

1. - 8. (cancelled)

9. (previously presented) A needle valve member for a fuel injector comprising:

a nozzle insert having an external valve surface, an internal valve seat and at least one nozzle outlet;

a tube irreversibly attached to said nozzle insert;

said nozzle insert includes a cylindrical male mating surface; and

said tube having a cylindrical female mating surface mated to said cylindrical male mating surface of said nozzle insert.

10. (previously presented) A needle valve member for a fuel injector comprising:

a nozzle insert having an external valve surface, an internal valve seat and at least one nozzle outlet;

a tube irreversibly attached to said nozzle insert;

said tube includes an external surface with a first diameter adjacent said nozzle insert and a second diameter away from said nozzle insert; and

said first diameter is smaller than said second diameter, and said first diameter is separated from said second diameter by an opening hydraulic surface.

11. (previously presented) A needle valve member for a fuel injector comprising:

a nozzle insert having an external valve surface, an internal valve seat and at least one nozzle outlet;

a tube irreversibly attached to said nozzle insert; and

said at least one nozzle outlet includes a plurality of nozzle outlets that are oriented into at least one of a non-impinging spray pattern and an impinging spray pattern.

12. (previously presented) A needle valve member for a fuel injector comprising:

a nozzle insert having an external valve surface, an internal valve seat and at least one nozzle outlet;

a tube irreversibly attached to said nozzle insert; and

said nozzle insert has a circumferential side surface that includes said external valve surface positioned between a guide cylindrical surface and a mating cylindrical surface.

13. (original) The needle valve member of claim 12 wherein said guide cylindrical surface has a guide length and a guide diameter that is smaller than said guide length.

14. (original) The needle valve member of claim 12 wherein said mating cylindrical surface has a mating length and a mating diameter that is smaller than said mating length.

15. (previously presented) The needle valve member of claim 10 wherein said at least one nozzle outlet includes a plurality of nozzle outlets that are oriented into at least one of a non-impinging spray pattern and an impinging spray pattern.

16. (original) The needle valve member of claim 15 wherein said nozzle insert has a circumferential side surface that includes said external valve surface positioned between a guide cylindrical surface and a mating cylindrical surface;

said guide cylindrical surface has a guide length and a guide diameter that is smaller than said guide length; and

said mating cylindrical surface has a mating length and a mating diameter that is smaller than said mating length.

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (currently amended) A fuel injector comprising:

an injector body defining a plurality of second nozzle outlets and including a valve seat;

a needle valve member comprising a nozzle insert having an external valve surface for contacting and closing said valve seat, an internal valve seat for receiving a valve member, and at least one nozzle outlet, and including a tube irreversibly attached to said nozzle insert

the needle valve member being at least partially positioned in said injector body and being movable as a unit between a first position out of contact with said valve seat of said injector body in which said second nozzle outlets are open, and a second position in contact with said valve seat of said injector body in which said second nozzle outlets are closed.

22. (previously presented) The fuel injector of claim 21 wherein said nozzle insert includes a cylindrical male mating surface; and

said tube having a cylindrical female mating surface mated to said cylindrical male mating surface of said nozzle insert.

23. (previously presented) The fuel injector of claim 21 wherein said tube includes an external surface with a first diameter adjacent said nozzle insert and a second diameter away from said nozzle insert; and

said first diameter is smaller than said second diameter, and said first diameter is separated from said second diameter by an opening hydraulic surface.

24. (previously presented) The fuel injector of claim 21 wherein said at least one nozzle outlet includes a plurality of first nozzle outlets that are oriented into at least one of a non-impinging spray pattern and an impinging spray pattern.

25. (previously presented) The fuel injector of claim 21 wherein said nozzle insert has a circumferential side surface that includes said external valve surface positioned between a guide cylindrical surface and a mating cylindrical surface.

26. (previously presented) The fuel injector of claim 25 wherein said guide cylindrical surface has a guide length and a guide diameter that is smaller than said guide length.

27. (previously presented) The fuel injector of claim 25 wherein said mating cylindrical surface has a mating length and a mating diameter that is smaller than said mating length.

28.(previously presented) The fuel injector of claim 21 wherein said tube includes an external surface with a first diameter adjacent said nozzle insert and a second

diameter away from said nozzle insert, and said first diameter is smaller than said second diameter;

said at least one nozzle outlet includes a plurality of first nozzle outlets that are oriented into at least one of a non-impinging spray pattern and an impinging spray pattern.

29. (previously presented) The fuel injector of claim 28 wherein said nozzle insert has a circumferential side surface that includes said external valve surface positioned between a guide cylindrical surface and a mating cylindrical surface;

said guide cylindrical surface has a guide length and a guide diameter that is smaller than said guide length; and

said mating cylindrical surface has a mating length and a mating diameter that is smaller than said mating length.

30. (previously presented) The fuel injector of claim 21 wherein said at least one nozzle outlet has a first spray pattern; and

said plurality of second nozzle outlets have a different spray pattern.

31. (previously presented) The fuel injector of claim 30 wherein said at least one nozzle outlet is at least one homogeneous charge outlet; and

said plurality of second nozzle outlets include a plurality of conventional nozzle outlets.